

REMARKS

As of the 9 August 2007 final *Office Action*, Claims 1-27 are pending in the Application. In the *Office Action*, the Examiner rejects all pending claims. Applicants thank the Examiner with appreciation for the careful consideration and examination given to the Application. By this *Response*, Applicants amend certain claims to clarify some currently claimed embodiments. No new matter is believed introduced in this submission as at least ¶¶ 63 and 65 of Applicants' *Specification* fully support the clarifying amendments.

Applicants submit this *Response* solely to facilitate prosecution. As such, Applicants reserve the right to present new or additional claims in this Application that have similar or broader scope as originally filed. Applicants also reserve the right to present additional claims in a later-filed continuation application that have similar or broader scope as originally filed. Accordingly, any amendment, argument, or claim cancellation is not to be construed as abandonment or disclaimer of subject matter.

After entry of this *Response*, Claims 1-27 are pending in the Application. Applicants respectfully assert that the pending claims are in condition for allowance over the references of record, and respectfully request reconsideration of the claims in light of this submission. Applicants, accordingly, believe that the Application is allowable for the following reasons.

I. Overview of the Rejections under 35 U.S.C. §103

In the *Office Action*, Claims 1-27 are rejected under 35 U.S.C. § 103(a).

Claims 1-6 and 8-26 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,124,806 to Cunningham et al. ("Cunningham") in view of Robert E. Kahn, "The Organization of Computer Resources into a Packet Radio Network", IEEE, 1977 ("Robert").

Claims 7 and 27 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cunningham in view of Robert, in further view of Jil A. Westcott, "Issues in Distributed Routing for Mobile Packet Radio Networks", IEEE, 1982 ("Jil").

As MPEP § 2143 provides, a *prima facie* case of obviousness requires three factual findings. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success.

Finally, the prior art reference must teach or suggest ***all the claim features*** as a whole. All three findings must be present to properly support a *prima facie* case of obviousness.

The Supreme Court has recently reaffirmed the “functional approach” to obviousness determinations, which dictates that a claim is not obvious if it recites “more than the predictable use of prior art elements according to their established functions.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740 (2007).

The Federal Circuit has stated that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In Re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

Claims 1-27 as amended are patentable because the cited combinations do not teach or suggest ***all the claim features***. Further, the features recited in Claims 1-27 are not a predictable use of the combined teachings of the cited references.

A. Claims 1-14 Are Patentable Over The Cited References

Claim 1 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cunningham in view of Robert. Claim 1 as amended, however, is patentable over Cunningham in view of Robert because it recites features that are not disclosed in or a predictable result of the combination of the cited references.

Claim 1 is amended to recite logic configured to poll one or more of the remote devices according to a predetermined schedule by transmitting a status message to each remote device requesting current operating status of each remote device (see Claim 1 for exact language). Cunningham’s sensor interface modules (“SIMs”) comprise a transmitter and do not include a receiver or transceiver, and thus cannot receive data. Therefore, polling Cunningham’s SIMs is impossible since the SIMs are incapable of receiving and responding to a polling message. Robert’s user terminals are capable of receiving signals, but Robert does not disclose the RADIONET polling the terminals to determine their operational status.

Therefore, logic configured to poll one or more of the remote devices according to a predetermined schedule by transmitting a status message to each remote device requesting current operating status of each remote device is not a predictable use of the networks as taught by Cunningham and Robert. *Ex parte Catan*, (PTO Bd. App. & Int. July 3, 2007, page 10) (“The

operative question in this ‘functional approach’ is thus ‘whether the improvement is more than the predictable use of prior art elements according to their established functions.’”)

Jil does not cure the defects of Cunningham and Robert with respect to Claim 1. Jil discloses methods of distributed routing for mobile packet radio networks. Jil’s disclosure is directed to radio packet protocols of the routing network and does not address or disclose operations related to remote devices associated with the network. Therefore, Jil does not disclose polling remote devices to determine their operational status.

For at least these reasons, Cunningham, Robert, and Jil, alone or in combination, fail to disclose, teach or suggest each and every feature of Claim 1. Thus, Applicants respectfully submit that Claim 1 is patentable over Cunningham, Robert, and Jil, and is in condition for allowance. Claims 2-14 are also believed to be in condition for allowance at least due to their dependence upon Claim 1, and further features defined therein.

B. Claims 15-22 Are Patentable Over The Cited References

Claim 15 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cunningham in view of Robert. Claim 15 as amended, however, is patentable over Cunningham in view of Robert because it recites features that are not disclosed in or a predictable result of the combination of the cited references.

Claim 15 is amended to recite generating a network map of up-stream and down-stream communication between the remote devices (see Claim 15 for exact language). Cunningham’s sensor interface modules (“SIMs”) comprise a transmitter and do not include a receiver or transceiver, and thus cannot receive data. Therefore, there is no down-stream path to map in Cunningham’s network. Further, the SIM’s communicate directly with the data collection modules (“DCMs”). Therefore, there is no need to map up-stream communications since each is a direct path between the SIM and DCM. Robert discloses a RADIONET with terminal and repeater communicating with a control station, but does not disclose generating a map of the up-stream and down-stream communications between the control stations and terminals.

Therefore, generating a network map of up-stream and down-stream communications is not predictable use of the networks as taught by Cunningham and Robert. *Ex parte Catan*, (PTO Bd. App. & Int. July 3, 2007, page 10) (“The operative question in this ‘functional approach’ is thus ‘whether the improvement is more than the predictable use of prior art elements according

to their established functions.”)

For at least these reasons, Cunningham and Robert, alone or in combination, fail to disclose, teach or suggest each and every feature of Claim 15. Thus, Applicants respectfully submit that Claim 15 is patentable over Cunningham and Robert, and is in condition for allowance. Claims 16-22 are also believed to be in condition for allowance at least due to their dependence upon Claim 15, and further features defined therein.

C. Claims 23-27 Are Patentable Over The Cited References

Claim 23 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cunningham in view of Robert. Claim 1 as amended, however, is patentable over Cunningham in view of Robert because it recites features that are not disclosed in or a predictable result of the combination of the cited references.

Claim 23 is amended to a means for polling remote devices and a means for managing up-stream and down-stream communication based upon a network map (see Claim 23 for exact language). As discussed with regard to claims 1 and 15, Cunningham's sensor interface modules (“SIMs”) comprise a transmitter and do not include a receiver or transceiver, and thus cannot receive data. Therefore, polling and down-stream communication with Cunningham's SIMs is impossible since the SIMs are incapable of receiving down-stream communication and polling messages. Robert's user terminals are capable of receiving signals, but Robert does not disclose the RADIONET polling the terminals to determine their operational status or generating a network map to manage communications between the terminals and control stations.

Therefore, a means for polling the remote devices and a means for managing communication based on a network map is not a predictable use of the networks and elements as taught by Cunningham and Robert. *Ex parte Catan*, (PTO Bd. App. & Int. July 3, 2007, page 10) (“The operative question in this ‘functional approach’ is thus ‘whether the improvement is more than the predictable use of prior art elements according to their established functions.’”)

Jil does not cure the defects of Cunningham and Robert with respect to Claim 23. As previously discussed, Jil discloses methods of distributed routing for mobile packet radio networks. Jil's disclosure is directed to radio packet protocols of the routing network and does not address or disclose operations related to remote devices associated with the network. Therefore, Jil does not disclose polling remote devices to determine their operational status.

Further, Jil does not disclose managing up-stream and down-stream communications between a site controller and remote device based on a network map.

For at least these reasons, Cunningham, Robert, and Jil, alone or in combination, fail to disclose, teach or suggest each and every feature of Claim 23. Thus, Applicants respectfully submit that Claim 23 is patentable over Cunningham, Robert, and Jil, and is in condition for allowance. Claims 24-27 are also believed to be in condition for allowance at least due to their dependence upon Claim 23, and further features defined therein.

II. Fees & Express Request for Continued Examination Under 37 CFR § 1.114

Applicants file this *Response* within three months of the 9 August 2007 final *Office Action* with no additional claims. Thus, Applicants believe that no extension or claims fees are due.

Applicants expressly request continued examination pursuant to 37 C.F.R. § 1.114. Applicants submit this *Response* as the required RCE submission and pay the appropriate RCE fee via EFS-Web.

No additional fees are believed due. The Commissioner is authorized, however, to charge any fees that may be required, or credit any overpayment, to Deposit Account No. 20-1507 for full acceptance of this submission.

III. Conclusion

This *Response* is believed to be a complete response to the 9 August 2007 final *Office Action*. Applicants respectfully assert that all pending claims are in condition for allowance and respectfully request issuance of this case in due course of *Office* business. If the Examiner believes there are other issues that can be resolved by a telephone interview, or there are any informalities remaining in the application correctable by an Examiner's amendment, a telephone call to Filip Kowalewski at (404) 885-3487 is respectfully requested.

Respectfully submitted,

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DATE: 5 October 2007